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## 1-30. (CANCELED)

31. (CURRENTLY AMENDED) An interlacing device (10, 10') for use with a palletizing machine (1) the interlacing device (10, 10') interlacing, with an interlacing material (12'), elongated products (2) that are to be palletized in superimposed rows on at least one transport pallet (7), the interlacing device (10, 10') comprising:

at least one interlacing gantry (11, 11') comprising:

at least two upright posts having top ends and bottom ends, the top ends of the at least two upright posts are ~~joined by~~ fixedly connected to a cross-beam, which extends generally parallel to at least a portion of a length of the elongated products (2) when the elongated products (2) are being palletized, and the cross beam having a length greater than a length of the elongated products (2); and

at least one interlacing guide (20, 20'), carried by the cross-beam and movable with the cross beam and the two upright posts, for dispensing the interlacing material (12') from at least one spool (12);

wherein at least two fixed guide base sections (19') extend parallel to one another and substantially perpendicular to the cross-beam, the bottom end of each of the at least two upright posts engage movably coupled to one of the two fixed guide base sections (19') so as to be movable along one of the at least two fixed guide base sections (19') for facilitating guiding movement of the at least one interlacing gantry (11, 11') along the at least two fixed guide base sections (19'); and a drive mechanism, operated independently of operation of the palletizing machine (1) which palletizes the elongated products (2), is connected to the interlacing gantry (11, 11') for displacing the interlacing gantry (11, 11') relative to the at least two fixed guide base sections (19'), between at least two alternate end positions such that the at least one interlacing guide (20, 20') is displaced in at least one interlacing plane (P) from one side to another side of the transport pallet (7), the at least one interlacing plane (P) is essentially perpendicular to the elongated products (2), when palletized, and the cross-beam.

32. (PREVIOUSLY PRESENTED) The interlacing device according to claim 31, wherein the drive mechanism displaces the interlacing gantry (11, 11') alternately between the at least two alternate end positions at least once.

33. (PREVIOUSLY PRESENTED) The interlacing device according to claim 31, wherein the drive mechanism (14) displaces the interlacing gantry (11, 11') to move at least once in alternate translation.

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34. (PREVIOUSLY PRESENTED) The interlacing device according to claim 31, wherein the drive mechanism (14) is one of electric motors (15), hydraulic cylinders and pneumatic cylinders.

35. (PREVIOUSLY PRESENTED) The interlacing device according to claim 34, wherein the drive mechanism (14) comprises at least one transmission system selected from the group comprising at least pinions and a chain (16), and a pulley and a belt.

36. (PREVIOUSLY PRESENTED) The interlacing device according to claim 33 wherein the bottom ends of the at least two upright posts have integral rollers that roll along the at least two fixed guide base sections (19') for moving the interlacing gantry (11, 11') in a translational direction.

37. (PREVIOUSLY PRESENTED) The interlacing device according to claim 36, wherein the rollers (17) integral with the upright posts (11a) of the interlacing gantry (11, 11') are guide wheels.

38. (PREVIOUSLY PRESENTED) The interlacing device according to claim 31, wherein the interlacing gantry (11, 11') comprises at least two guides (20, 20') located on the cross-beam to distribute at least two interlacing ties (12') in at least two essentially parallel interlacing planes (P) across the length of the elongate products (2) when palletized.

39. (PREVIOUSLY PRESENTED) The interlacing gantry according to claim 38, wherein at least one of the at least two guides (20') communicates with activating means (21) which displace the at least one of the at least two guides (20') in alternate translation along the cross-beam of the interlacing gantry (11') over a predetermined distance (D) to displace the interlacing plane (P) essentially laterally.

40. (PREVIOUSLY PRESENTED) The interlacing device according to claim 39, wherein the activating means (21) is at least one of electric motors, hydraulic cylinders and pneumatic cylinders.

41. (CURRENTLY AMENDED) A palletizing machine (1) having an interlacing device (10, 10') for palletizing elongated cylindrical products (2), the palletizing machine (1) comprising:

at least one upright palletizing gantry (3), at least one carrier (4) being supported by and vertically slidable along the at least one upright palletizing gantry (3), and at least one gripping device (5) being supported by and horizontally slidable along the at least one carrier (4) to transfer the elongated cylindrical products (2) from a storage ramp (6) to a transport pallet (7);

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the interlacing device (10, 10') is separate from the palletizing machine (1) and comprises at least one interlacing gantry (11, 11'), which comprises at least one interlacing guide (20, 20') for supplying an interlacing material (12') from at least one spool (12);

at least two upright posts having top ends and bottom ends, the top ends of the at least two upright posts are interconnected by a cross-beam, which generally extends parallel to and along at least a portion of a length of the elongated cylindrical products (2) when palletized, the cross-beam having a greater length than the length of the elongated cylindrical products (2), the bottom ends of the at least two upright posts each have at least one guide which is received and slidably supported by one of at least two fixed guide sections (19') pathways, which extend substantially perpendicular to the cross-beam for facilitating movement of the cross-beam substantially normal to the at least two fixed guide sections (19') pathways and the at least one carrier (4) of the palletizing machine (1), the interlacing device (10, 10') also comprises a drive mechanism, which is separate from the operation of the palletizing machine (1), the drive mechanism is connected to the interlacing gantry (11, 11') for displacing the interlacing gantry (11, 11') inside the palletizing machine (1), vertically below the gripping device (5), and relative to the two fixed guide sections (19') pathways, between at least two alternate end positions so as to displace the at least one interlacing guide (20, 20') in at least one interlacing plane (P), that is essentially perpendicular to the palletized products (2), alternately from one side to another side of the transport pallet (7).

42. (PREVIOUSLY PRESENTED) The palletizing machine according to claim 41, wherein the at least one interlacing gantry (11, 11') has dimensions that permit the interlacing device (10, 10') to be located within the palletizing gantry (3) of the palletizing machine (1) below the gripping device (5) and a length of the cross beam is greater than a length of the transport pallet (7) and the palletized products (2) and smaller than a length of the gripping device.

43. (PREVIOUSLY PRESENTED) The palletizing machine according to claim 41, wherein the gripping device (5) comprises means for controlling a drive mechanism associated with the drive mechanism of the palletizing machine (1) in order to displace the interlacing gantry (11, 11') alternately from the one side of the transport pallet (7) to the other side of the transport pallet (7) essentially parallel to the interlacing planes (P) as the products (2) are palletized on the transport pallet (7) according to a predetermined interlacing pattern.

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44. (PREVIOUSLY PRESENTED) The palletizing machine according to claim 41, wherein at least one of the interlacing guides (20') on the interlacing device (10') is associated with activating means (21) designed to displace the at least one of the interlacing guides (20') in alternate translation along the interlacing gantry (11') for a predetermined distance (D) so as to displace the corresponding interlacing plane (P) essentially parallel.

45. (PREVIOUSLY PRESENTED) The palletizing machine according to claim 43, wherein the control means are designed to control the activating means (21) for activating the interlacing guide (20') so as to wrap the interlacing material (12') around posts (7') on the transport pallet (7) as palletization of the products (2) progresses and in the predetermined interlacing pattern.

46. (CURRENTLY AMENDED) An interlacing device (10, 10') for interlacing a tie material (12') between palletized products (2) deposited by a palletizing machine (1), the interlacing device comprising:

an interlacing gantry (11, 11') extending generally parallel to and along at least a portion of a length of the palletized products (2), the interlacing gantry (11, 11') having at least one interlacing guide (20, 20') supplied with the tie material (12') from at least one spool (12) for facilitating the interlacing of the tie material (12') between the palletized products (2); and

a drive for displacing the interlacing gantry (11, 11') between a first position and a second position and laying the tie material (12') along at least one interlacing plane (P) so as to separate portions of the palletized products (2);

wherein the interlacing gantry (11, 11') comprises at least two upright posts (11a) interconnected by a cross-beam (11b) and the at least two upright posts (11a) and the cross-beam (11b) extend generally parallel to and along at least a portion of a length of the products (2), the at least one interlacing guide (20, 20'), carried by the cross-beam (11b), for dispensing the tie material (12') from the at least one spool (12), the at least two upright posts (11a) and the cross-beam (11b) extend vertically above and over a gantry base structure (19), and at least a guide ⇨  
section one guide pathway of the gantry base structure (19), the at least one guide ⇨  
pathway extends substantially perpendicular to the cross-beam (11b) and receives a ⇨  
roller which is integral with the interlacing gantry (11, 11') for facilitating guided ⇨  
movement of the cross-beam (11b) [[along]] of the interlacing device (10, 10'), the ⇨  
drive for displacing the interlacing gantry (11, 11') is independent from any drive of  
the palletizing machine (1) so that operation of the interlacing gantry (11, 11') does  
not interfere with operation of the palletizing machine (1), and the drive for displacing

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the interlacing gantry (11, 11') is coupled to the interlacing gantry (11, 11') inside the palletizing machine (1) and relative to and along the base structure (19) between first and second opposed end positions of the interlacing gantry (11, 11').

47. (PREVIOUSLY PRESENTED) The interlacing device according to claim 46, wherein the interlacing gantry (11, 11') further comprises a pair of posts (11a) interconnected at a top end thereof by a cross-beam (11b) which supports the at least one interlacing guide (20, 20') for guiding the tie material (12') relative to the palletized products (2) in alternating translation.

48. (PREVIOUSLY PRESENTED) The interlacing device according to claim 47, wherein the interlacing device further comprises at least one chassis (19) equipped with a pathway (18) for guiding the pair of upright posts (11a) interconnected by the cross-beam (11b) (11b) to move relative to the palletized products (2) in alternating translation.

49. (PREVIOUSLY PRESENTED) The interlacing device according to claim 48, wherein the pathway (18) for guiding the pair of upright posts (11a) is formed in the chassis (19) to receive rollers (17) supporting the pair of upright posts (11a).

50. (PREVIOUSLY PRESENTED) The interlacing device according to claim 46, wherein the at least one interlacing guide (20, 20') for guiding the tie material (12') relative to the palletized products (2) in alternating translation in a first direction further comprises an actuator means (21) for moving the interlacing guide (20, 20') relative to the interlacing gantry (11, 11') in alternating translation in a second direction substantially perpendicular to the first direction to wrap the interlacing tie material (12') around a post (7') supporting the palletized products (2).